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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,037	08/16/2006	Kenichi Suzuki	018842.1505	9410

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EXAMINER

JIANG, CHEN WEN

ART UNIT	PAPER NUMBER
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3744

NOTIFICATION DATE	DELIVERY MODE
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01/29/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/598,037	Applicant(s) SUZUKI, KENICHI	
	Examiner Chen-Wen Jiang	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>translation of JP2003291633</u> |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/13/2009 have been fully considered but they are not persuasive. A temperature (Toff) calculated by the evaporator target temperature calculation means and a condition of $\text{Teve} - \text{Toff} \geq A$ is satisfied have been disclosed by Suzuki. Suzuki discloses the evaporator target temperature is computed by the target temperature calculating means ([0012] and [0013]). Suzuki discloses $\text{Teve} \geq \text{Toff}_2$ in Fig.9 and [0040], which is equal to $\text{Teve} \geq \text{Toff}_1 + A$, which is equivalent to $\text{Teve} - \text{Toff}_1 \geq A$ and is equivalent to Applicant's $\text{Teve} - \text{Toff} \geq A$.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by Suzuki et al. (JP 2003291633).

Suzuki et al. disclose a vehicle air conditioner system as shown in Fig.1. The system comprises a first compression mechanism having fixed speed 5, a second compression mechanism having variable speed 3, evaporator exit air temperature sensor 41, a drive source change control means of the compressor, an electric-motor control means, a cooler for a refrigerating cycle, a number-of-rotations detection means for the motor for vehicles, and a target number-of-rotations calculation means for the electric motor. It provides changes from the state

Art Unit: 3744

where the compressor is not driven to the simultaneous drive, from the independent drive to the simultaneous drive, or from the simultaneous drive to the independent drive. The controller includes a target evaporator T_{off1} and the target evaporator temperature plus a predetermined value T_{off2} , therefore, $A = T_{off2} - T_{off1}$. Referring to Fig.9, evaporator exit air temperature is controlled, when the evaporator exit air temperature exceeds temperature $T_{off1} + A$ then the second compression drive is inputted. The second compression drive is stopped when the evaporator exit air temperature less than the evaporator target temperature T_{off1} .

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 2, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (JP 2003291633) in view of Rentmeester et al. (U.S. Patent Number 5,027,608).

In regard to claim 2, Suzuki et al. discloses the invention substantially as claimed.

However, Suzuki et al. does not disclose satisfied condition is longer than a predetermined time.

Art Unit: 3744

Rentmeester et al. discloses criteria can be an integrated time or longer than a predetermined time (col.10, lines 18-28 and Fig.4) in the same field of endeavor for the purpose of changing operation status. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Suzuki et al. with a longer than a predetermined time criteria in view of Rentmeester et al. so as to determine the operation status.

In regard to claim 4, $T_{eva-Toff} \geq A$ is automatically satisfied when $T_{eva-Toff} \geq D$ since D is greater than A.

In regard to claim 6, Suzuki discloses only operating the first compression mechanism (third section of Fig.9) when the temperature is lower than the predetermined value T_{off1} and Rentmeester discloses the additional time requirement when determining the switch the operation status.

6. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki/Rentmeester as applied to claims 1 and 2 above, and further in view of Toki (JP 2002234337).

In regard to claim 3, Suzuki/Rentmeester discloses the invention substantially as claimed. However, Suzuki/ Rentmeester does not disclose room temperature requirement. Toki discloses room temperature requirement can be added in addition to another condition in the same field of endeavor for the purpose of controlling compression systems. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Suzuki/ Rentmeester with additional room temperature requirement in view of Toki so as to have an alternative control option.

In regard to claim 5, $T_{in-Tset} \geq C$ is automatically satisfied when $T_{in-Tset} \geq E$ since E is greater than C.

Art Unit: 3744

Allowable Subject Matter

7. Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chen-Wen Jiang whose telephone number is (571) 272-4809.

The examiner can normally be reached on Monday-Thursday from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chen-Wen Jiang/

Primary Examiner, Art Unit 3744